

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H20NM Revision 1
Siller Helicopters
CH-3E December 03, 2004

TYPE CERTIFICATE DATA SHEET NO. H20NM

This data sheet, which is a part of the Type Certificate No. H20NM, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Siller Helicopters
1250 Smith Road
Yuba City, CA 95991

I - Model CH-3E (Restricted Category Military Surplus Rotorcraft) Approved September 13, 1995.
(See NOTE 9)

Engines (2) General Electric T58-GE-5 or (2) General Electric T58-GE-100.

Fuel Aviation Kerosene, JP4 or JP5 (General Electric Co. Spec. No. D50T1011 or subsequent revisions thereto).

Engine Limit Sea Level Static - Standard Day

	Power Torque (%Q)	Gas Turbine Speed (%N _f)	Power Turbine Generator Speed (%N _g)	Inlet Temp. (T ₅)
Takeoff				
T58-GE-5 (5 Min.)	103	112	102.7	721 ⁰ C
T58-GE-100 (10 Min.)	103	112	103.4	745 ⁰ C
One Engine Inoperative				
T58-GE-5 (30 min.)	123	112	102.7	696 ⁰ C
T58-GE-100 (30 min.)	123	112	103.4	721 ⁰ C
Maximum Continuous (See Note 5)				
T58-GE-5	86	112	102.7	660 ⁰ C
T58-GE-100	86	112	103.4	685 ⁰ C
Starting Max. Transient (2 Sec.)	NA	NA	NA	840 ⁰ C
Allowable Max. Overspeed	(See Note 6)	123	106.0	NA

Rotor Limits Max. 225 r.p.m. (112%)
Min. 184 r.p.m. (91%)

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Transmission Torque Limits

	Power Torque (%Q)
Takeoff	
T58-GE-5 (5 Min.)	103
T58-GE-100 (10 Min.)	103
One Engine Inoperative	
T58-GE-5 (30 min.)	123
T58-GE-100 (30 min.)	123
Maximum Continuous	
T58-GE-5	86
T58-GE-100	86

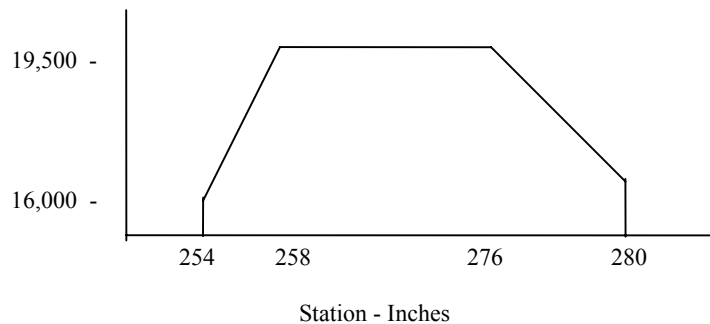
Airspeed Limits

V_{NE} (Never exceed) speed 165 m.p.h. (142 knots) CAS.

C.G. Range

(+258.0) to (+276.0) at 19,500 lbs.
(+254.0) to (+280.0) at 16,000 lbs. or less.

Gross Weight (Lbs.)

Empty Weight
C.G. Range

None

Datum

267.4 in. forward of main rotor centroid.

Leveling Means

Leveling plates on sill and upper frame of forward door.

Maximum Weight

19,500 lbs.

Minimum Crew

2 (pilot and copilot).

Maximum Passengers

See Note 15

Maximum Cargo

See NOTE 7

Fuel Capacity

667 gal. (333 gal. at 215.3, 334 gal. at 317.3).

Oil Capacity

5.0 gal. (2 tanks 2.5 gal. each at 181.0).

Rotor Blade
& Control Movements

For rigging information, see NOTE 10.

Serial No. Approved

65-12792

Certification Basis

FAR 21.25(a)(2) effective February 1, 1965, including Amendments 21-1 through 21-71.
Type Certificate No. H20NM for the Special Purpose(s) of:

1) Agricultural Operations under FAR 21.25(b)(1).

Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for agricultural operations excepted by FAR 36.1(a)(4) and defined under FAR 137.3.

2) Forest and Wildlife Conservation Operations under FAR 21.25(b)(2).

Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for dispensing fire fighting materials excepted by FAR 36.1(a)(4) and defined under FAR 137.3.

(3) External Load Operations under FAR 21.25(b)(7).

Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for external load operations excepted by FAR 36.1(a)(4) and defined under FAR 133.1(b).

Certification Basis (cont'd)

Any alteration to the helicopter for Special Purposes not identified above require further FAA approval and in addition, may require noise and/or flight testing.

General Note: Any subsequent modifications to the helicopters type certified under this Type Certificate are to have the certification basis for that modification established under 14 CFR 21.101 published June 7, 2000 which became effective June 10, 2003.

Otherwise non-significant modifications are to meet the requirements of CAR 7 airworthiness standards, transport category, Amendment 7-4, effective October 1959, plus special conditions for turbine engine installations and 14 CFR 29.1529, Instructions for Continued Airworthiness, Amendment 20, effective September 11, 1980.

Date of Application

January 13, 1995

Production Basis

None. No helicopter may be produced under this approval. Prior to adding serial numbers to this Type Certificate, each candidate helicopter must undergo a conformity inspection. The conformity inspection will be conducted in accordance with a Type Inspection Authorization, Part I, or request for conformity that will include as a minimum, the inspections contained in the FAA Rotorcraft Directorate Restricted Category conformity document dated September 25, 2001 or later FAA approved revisions.

Equipment

Equipment necessary for the particular special purpose operation must be installed.

NOTE 1

A current weight and balance report including a list of equipment included in the certificated empty weight, and loading instructions specified in USAF T.O. No. 1H-3(C)E-5, through Change 8 dated November 1988 or later FAA approved revisions, must be in each helicopter at the time of original airworthiness certification and at all times thereafter.

NOTE 2

The following modifications are required. The following placards must be prominently displayed in the cockpit in full view of the pilots, in accordance with drawing SH-75.

"THIS ROTORCRAFT MUST BE OPERATED IN ACCORDANCE WITH THE RESTRICTED CATEGORY OPERATING LIMITATIONS OF FAR 91.313."

"VFR OPERATIONS ONLY."

The builder's data plate required by FAR 45.13 must be installed in accordance with drawing SH-74.

- NOTE 3 The service life limited parts overhaul and retirement intervals are specified in Siller Helicopters Life Limited Parts Report CH-3E, No. CH-3E-085 dated July 11, 1995, or later FAA approved revisions.
- NOTE 4 This helicopter must be operated in accordance with a Flight Manual comprised of the following:
- (1) Department of the Air Force Flight Manual No. TO 1H-3(C)E-1, "Flight Manual, USAF Series, CH-3E and HH-3E Helicopters", dated September 1, 1983 with Change 3, dated April 16, 1989.
- Restricted category aircraft may not be operated in a foreign country without the express written approval of that country.
- This aircraft has not been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation.
- NOTE 5 Maximum continuous total power for two-engine operation is limited to 2100 hp.
- NOTE 6 Torque may exceed 103 percent Q on one engine to a maximum of 123 percent, provided that the power of the other is reduced so that total torque for both engines does not exceed 206 percent Q for 30 minutes or 172 percent continuously, and that the single engine N_g , T_5 and Q limits are not exceeded. The governing parameter is the limit which occurs first.
- NOTE 7 Provisions for the carriage of external loads are available in the form of structural hard points on the fuselage and single point hook. Information concerning the operating limitations with this equipment is contained in the Flight Manual.
- NOTE 8 Continued airworthiness of the USAF CH-3E helicopters eligible under this TCDS is contingent upon compliance with all applicable FAA Airworthiness Directives for the Sikorsky Model S61R helicopters, the General Electric CT-58 (Military Model T-58) engine, and any components installed thereon.
- NOTE 9 Prior to civil airworthiness certification, Siller Helicopters Engineering Report No. SH-083, dated March 8, 1995 or later FAA approved revisions, must be incorporated.
- NOTE 10 These helicopters must be serviced and maintained in compliance with Siller Helicopters Continued Airworthiness Maintenance Report CH-3E, No. CH-3E-084 dated March 8, 1995 or later FAA approved revisions.
- NOTE 11 This aircraft is prohibited from carrying cargo for compensation or hire. Carriage of cargo is limited to such cargo that is incidental to the aircraft owners/operator's business which is other than air transportation.
- NOTE 12 Restricted category aircraft may not be operated in a foreign country without express written approval of that country.
- NOTE 13 This aircraft has not been shown to meet the requirements of the applicable comprehensive and detailed Airworthiness Code as provided by Annex 8 to the Convention on International Civil Aviation.
- NOTE 14 Any alteration to the type design of this aircraft may require Instructions For Continued Airworthiness. These instructions must be submitted to and accepted by the FTW-AEG, Aircraft Evaluation Group Office prior to approval for return to service.
- NOTE 15 No Person may be carried in this helicopter during flight unless that person is essential to the purpose of the flight.

END